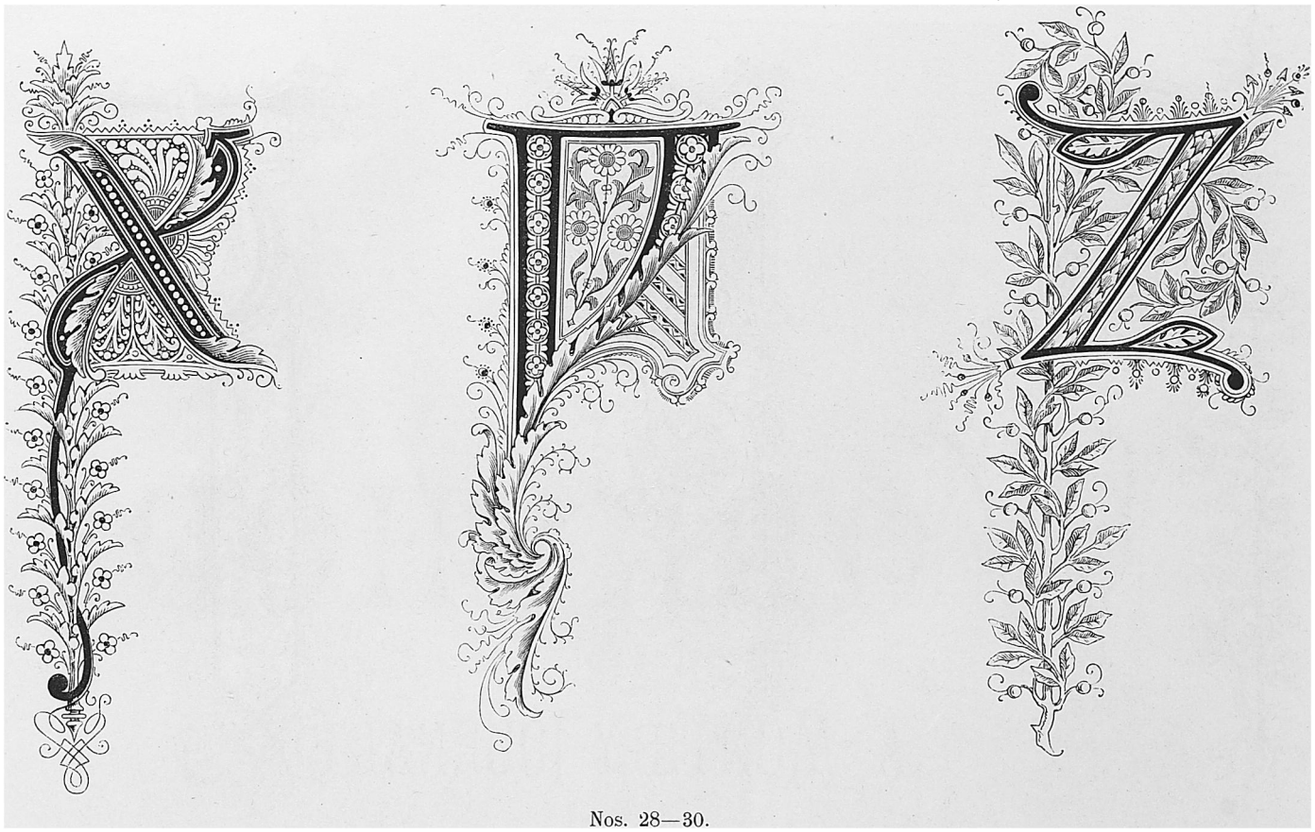

Nos. 28—30.

VARIOUS.

IMPROVED METHOD OF CONSTRUCTION WITH METALS, GLASS AND OTHER MATERIALS.

Under this title the "Journal of the Franklin Institute" describes the invention of Mr. William Haggett, which consists in giving to the materials used in construction a peculiar form, in virtue of which the strength and adaptability of the same to civil, military, and marine constructions is claimed to be much improved.

The process, in general terms, consists in giving to plain plates or sheets of uniform thickness, of the various kinds and qualities of metals, glass, tiles, and other substances, compound undulating forms, the undulations crossing each other at right angles, or obliquely, or radially and circular.

These forms, it is claimed, impart to the plates great lateral strength and rigidity; and as the undulations extend in opposite directions they afford equal compensations for contraction and expansion in all directions, a desideratum of great practical importance in construction, since, if realised, it makes it practicable to attach the borders of such plates firmly to adjacent unyielding masses.

The process for undulating the plates is varied to suit the character of the material operated upon, some by direct casting in matrices of the desired form, others by being heated and then pressed between rollers, stamps and dies; but in all cases it is necessary that the alternate convex and concave parts of the rollers &c., actually fit and work with each other.

The following estimate is claimed to represent the strength of the undulated over the plain plates: — Iron and steel, about two-fifths; galvanized iron, three fifths; sheet tin, three fifths; brass, three-fifths; zinc, two-fifths; copper, four-fifths; lead, three-fifths; cardboard, one-fifth; while glass is nearly doubled in strength.

In construction of the ordinary kind the plates may be attached one to another, with some overlap, and then attached simply at the ends. An interior wall of similar character is also erected, and the space between the two filled up with some non-conducting material, which shall make the building independent of the external temperature.

Bricks and tiles of this form are constructed and employed for roofs, sewer and wharf constructions, with success; while, applied to glass for skylights, illuminating panels in buildings or conservatories, there are claimed for it the several advantages of increased strength, no decrease of light, and nearly perfect absence of lateral expansion.

SCULPTURE, PAINTING AND PHOTOGRAPHY FOR PERSIA.

Whilst in Paris the Shah gave sittings to a sculptor for his bust, and for his portrait in oil and photography. He spoke of patronising sculpture in Persia, and made large purchases of photographic materials for his own use. All who have applied for concessions have been referred to the Grand Vizier. The Shah is understood to have spent 50,000 £ in jewelry and objects of art whilst in Paris.

THE SPHINX OF EGYPT

is nearly covered up by the sand of the desert. The neck of the Sphinx is partly cut across, not, as we are assured by Mr. Huxley, by ordinary weathering, but by the eroding action of the fine sand blown against it. In these cases nature furnishes us with hints which may be taken advantage of in art; and this action of sand has been recently turned to extraordinary account in the United States.